WHAT IS CLAIMED IS:

1.   A system where a cluster of servers constitute a multiplicity of cluster nodes which are all connected to each other to service multiple PC users via a public network comprising:

5   (a)   shared storage means virtually providing a disk resource (Quorum) of stored data, said means being seen as a single quorum repository of a Microsoft Cluster Service Program;

              (b)   local quorum disk resource means which are
10   positioned in each node of said cluster of servers and which operate as a single quorum;

              (c)   means to utilize the remaining nodes of the cluster when a node is disconnected or inoperative.

2.   The system of claim 1 which includes:

(d) means to convert said multiplicity of cluster nodes into a single node with its own local quorum disk resource;

5   (e) means to troubleshoot said single node to find the cause of its inoperability.

3.   The system of claim 1 which includes:

(dx1) means to sense a network outage which severs said cluster into two partitions;

5   (dx2) means to enable the remaining group holding the majority of nodes to continue in operable activity.

4.   The system of claim 3 which includes:

(dx3) means to take off-line the non-majority group of nodes.

5. A cluster system of "M" server nodes operating with an (MSCS) Microsoft Cluster Service program and able to revive and reconstitute a majority node set cluster after a node failure comprising:

  (a) a majority node set quorum resource servicing said server nodes when a majority of the cluster nodes are operating and are all in communication with each other;

  (b) means to bring back the cluster on-line after a failure causing non-utilization of one or more nodes.

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6.   The cluster system of claim 5 where said means (b) to bring back the cluster on-line includes:

          (b1) means to detect whether the system is operating as a majority node set, a shared disk quor·m or as a local quorum.

7.   The system of claim 6 which indicates system operation as a majority node set then further includes:

          (b1a) means to revive and put back on-line non-functioning server nodes;

          (b1b) means to reconstitute sufficient server nodes to establish a majority node set cluster.

8.   The system of claim 7 wherein said means (b1b) to reconstitute includes:

          (b1ba) establishing an operating cluster where $M/2+1$ is the number of operational server nodes.

9.   In a cluster system of "M" server nodes
operating with an (MSCS) Microsoft Cluster Service
Program, a method for reviving and reconstituting a
majority node set cluster after a node failure comprising
5   the steps of:

> (a) executing a detection phase wherein a
> Cluster Verifier determines the type of
> clustering mechanism being deployed;
>
> (b) institute a Revival Phase, when the
> operating cluster nodes fall below M/2+1, in
> order to allow a user to manually restart the
> cluster;
>
> (c) instituting a Reconstitution Phase, when
> the prior non-operating cluster nodes are
> operational and ready to rejoin said cluster.

10.   The method of claim 9 wherein step (c) includes
the steps of:

(c1) terminating said Revival phase; and

(c2) reconnecting said newly restored
operational nodes back into said cluster.